AMENDMENT TO THE SPECIFICATION

Please replace the paragraph beginning on page 9, line 1, with the following paragraph:

--The FireWire standard and an ultrasound probe with integrated electronics as described in ~~co-pending U.S. Application No. 09/791,491~~ U.S. Patent No. 6,783,493, issued on August 31, 2004, entitled "Ultrasound Probe With Integrated Electronics," by Alice M. Chiang et al., the entire contents of which are incorporated herein by reference, may be used in preferred embodiments of the present invention. The FireWire standard is used for multimedia equipment and allows 100-200 Mbps and preferably in the range of 400-800 Mbps operation over an inexpensive 6 wire cable. Power is also provided on two of the six wires so that the FireWire cable is the only necessary electrical connection to the probe head. A power source such as a battery or IEEE 1394 hub can be used. The FireWire protocol provides both isochronous communication for transferring high-rate, low-latency video data as well as asynchronous, reliable communication that can be used for configuration and control of the peripherals as well as obtaining status information from them. Several chipsets are available to interface custom systems to the FireWire bus. Additionally, PCI-to-FireWire chipsets and boards are currently available to complete the other end of the head-to-host connection. CardBus-to-FireWire boards can also be used.--

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Please replace the paragraphs beginning on page 11, line 20, and ending on page 12, line 13, with the following paragraphs:

--FIG. 1C is a schematic functional block diagram of an exemplary embodiment of an ultrasound imaging system 10 that can be used for practicing aspects of the invention. Similar imaging systems are described in U.S. Pat. No. 5,957,846 to Alice M. Chiang et al., issued Sep. 28, 1999, entitled "Portable Ultrasound Imaging System," the entire contents of which are being incorporated herein by reference. Ultrasonic imaging system 10 may comprise a transducer array 14, cables 16, a transducer transmit/receive control module 18 compressing a transmit/receive chip 22, a customer Firewire chip set 24, 34, a memory 26, a system controller 28, a preamp/TGC Chip 30, and a beamforming module 32. System 10 also comprises a host computer further compressing a microprocessor 36, a keyboard/mouse controller 38, a core memory 40 and a display controller 42. An interface array 46 may be employed for communicatively coupling transducer transmit/receive control module 18 to host computer 20. Host computer 20 may take the form of a laptop computer, a desk top computer, a workstation, a personal digital assistant or any other form factor comprising the functionality of components of host computer 20 shown in FIG. 1C.

The microprocessor 36 also controls the memory 40 which stores data in a machine-readable format. It is understood that the memory 40 can be a single memory or can be multiple memory circuits. The microprocessor 36 also interfaces with the post signal processing functional instructions and the display controller ~~44~~ 42 to control their individual functions. The display controller ~~44~~ 42 may compress data to permit transmission

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of the image data to remote stations for display and analysis via a transmission channel. The transmission channel can be a modem or wireless cellular communication channel or other known communication method.--

Please replace the paragraphs beginning on page 16, line 12, and ending on page 17, line 12, with the following paragraphs:

-- Still another embodiment of the invention is illustrated in FIG. 3 in which a laptop computer 450, having a flat panel display and a standard keyboard, has been programmed to perform scan conversion, Doppler processing, automatic border detection, etc. on a beamformed representation of the region of a heart that has been transmitted from interface housing 454 along a standard communications link such as cable 458 that conforms to the IEEE 1394 FireWire standard or the USB 2.0 standard, for example. The computer 450 and/or the interface can optionally include a control panel 452, 456, that can be customized and used to control the analyses being conducted. A preferred embodiment of the interface housing 454 is controlled solely by the personal computer 450 and provides for the use of standard transducer array probes that can be interchangeably attached to the interface housing 454 with a cable. Alternately, an additional remote controller 464 can be used to control system operation. The interface 454 can house the circuit boards on which the beamformer, memory, system controller and digital communication circuits are mounted. The interface 454 is connected to the hand-held probe 460 with a cable 462 that is preferably between two feet and six feet in length, however longer lengths can be used. The transmit/receive and/or the

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preamplifier/TGC circuits can be in the probe housing 460 or in the interface housing 454. The computer can also be configured for gigabit Ethernet operation and for transmitting video and image data over networks to remote systems at clinics or hospitals. The video data can also be sent to a VCR or standard video recorder or video camera with an IEEE 1394 part for recording on videotape. The VCR or video camera can be controlled using the computer.

FIG. 4 shows an exemplary top-level screen of a graphical user interface 700 (GUI) for controlling and using the ultrasonic imaging system described herein. A selection bar 702 allows the operator to select the active focus areas of the screen. An image area 704 displays the ultrasonic image of the subject area. A patient information area 706 displays information about the subject from whom ultrasonic data is being gathered. A Time Gain Compensation or control (TGC) area 708 provides feedback about time gain compensation, described further below. A control bar 710 allows qualitative and quantitative selection of ultrasonic imaging operations.--

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